

the antibody in a cellular compartment, comprising introducing into a plant a DNA sequence encoding a heavy chain immunoglobulin devoid of a variable light chain domain, or an active fragment of said immunoglobulin, or a sequence encoding a protein functionally equivalent to the immunoglobulin, said DNA sequence being operably linked to one or more promoters, and expressing the antibody or fragment or protein functionally equivalent to the antibody, which are devoid of light chain domains but capable of specific binding with an antigen, in the cellular compartment.

2. (Amended) The method according to claim 1 wherein the DNA sequence encoding the heavy chain immunoglobulin or fragment or functional equivalent thereof is obtainable from camelids.

3. (Amended) The method according to claim 1 or claim 2 wherein the plant is selected from tobacco, pea, potato, spinach, tomato or tea.

4. (Amended) The method according to claim 1 wherein the heavy chain immunoglobulin or active fragment or functional equivalent thereof binds to a protein present in the plant.

5. (Amended) The method according to claim 1 wherein the heavy chain immunoglobulin or active fragment or functional equivalent thereof binds to a plant pathogen or animal pathogen.

a1
Out

6. (Amended) The method according to claim 1 wherein the heavy chain immunoglobulin or active fragment or functional equivalent thereof binds to a plant hormone or plant metabolite.

a2

9. (Amended) Seeds, fruits, progeny and hybrids of the plant according to claim 7 which comprise said DNA sequence encoding a heavy chain immunoglobulin or active fragment thereof or functional equivalent thereof.

Kindly consider the following new claim:

a3

--14. (New) The method according to claim 1 wherein said DNA sequence further comprises an additional sequence encoding a peptide sequence capable of targeting said antibody or fragment or functional equivalent thereof, to said cellular compartment.--
